May 18, 2001

D.T.E. 00-65

Joint Petition of Massachusetts Electric Company and Nantucket Electric Company for approval by the Department of Telecommunications and Energy of a three-year Energy Efficiency Plan for 2000-2002.

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FOR: Massachusetts Electric Company and

Nantucket Electric Company

Petitioners

I. INTRODUCTION

On August 9, 2000, pursuant to G.L. c. 25, § 19, G.L. c. 25A § 11G,

Massachusetts Electric Company, D.P.U. 96-25 (1996), and Order Promulgating Final Guidelines to Evaluate and Approve Energy Efficiency Programs, D.T.E. 98-100 (2000) ("DTE Guidelines"), Massachusetts Electric Company and Nantucket Electric Company (collectively "Company") filed with the Department of Telecommunications and Energy ("Department") their three-year Energy Efficiency Plan ("Plan") covering the period

2000-2002. On May 11, 2001, the Company filed an Energy Efficiency Plan 2001 Update ("Update"). The Department docketed this filing as D.T.E. 00-65.

On September 14, 2000, pursuant to G.L. c. 25A § 11G, 225 C.M.R. § 11.00 and the DTE Guidelines at § 6.2, the Commonwealth of Massachusetts, Division of Energy Resources ("DOER"), filed a report on the Company Plan with the Department ("DOER Report"). The DOER Report concluded that the Plan is substantially consistent with the statewide energy efficiency goals required by G.L. c.25A §11G, and with DOER's Guidelines for energy efficiency programs (DOER Report at 3). See Guidelines

Supporting the Massachusetts Division of Energy Resources Energy Efficiency Oversight and Coordination Regulation

225 C.M.R. 11.00.

On September 15, 2000, the Department issued a notice requesting comments on the Plan and the DOER Report. No comments were filed. The Company responded to twenty-six Department information requests.[(1)]

## II. STANDARD OF REVIEW

The Department is required to ensure that energy efficiency activities are delivered in a cost-effective manner utilizing competitive procurement processes to the fullest extent practicable. G.L. c. 25, § 19; G.L. c. 25A, § 11G. The Department has established guidelines that, among other things, set forth the manner in which the Department would review ratepayer-funded energy efficiency plans in coordination with DOER, pursuant to G.L. c.25, § 19 and G.L. c.25A, § 11G. Order Promulgating Final Guidelines to Evaluate and Approve Energy Efficiency Programs, D.T.E. 98-100 (2000).

DOER has the authority to oversee and coordinate ratepayer-funded energy efficiency programs, consistent with specified goals, and is required to file annual reports with the Department regarding proposed funding levels for said programs. G.L. c. 25A, §11G;

225 C.M.R. §§ 11.00 et seq. If the DOER report concludes that ratepayer-funded energy efficiency programs are consistent with state energy efficiency goals, and if no objection to the DOER report is raised, the Department's review of the Plan is limited to cost-effectiveness issues and the use of competitive processes. D.T.E. Guidelines at § 6.2; 225 C.M.R. § 11.2. III. ENERGY-EFFICIENCY PROGRAMS

### A. Summary of Programs

As shown in Table 1, attached to this Order, the Plan proposes overall energy efficiency budgets of approximately $67 million in 2000, $56 million in 2001, and $53 million in 2002 (Plan at 6).[(2)] The budgets provide for shareholder incentives based on performance,[(3)] the Plan specifies performance goals for the 2000 program year and the Update specifies performance goals for the 2001 program year (Plan, App. B at 13, App. C at 1;

Update, App. B). In addition to peak load management programs, the Plan provides for energy efficiency programs for residential and commercial-industrial ("C/I") customers, using four overlapping program types: the lost opportunity, market transformation, education, and retrofit approaches (id. at 3-4, 51). The Company notes that several programs use multiple approaches or have market-transforming effects even while they address lost opportunities and/or provide retrofit equipment (id.).

In lost opportunity programs, the Company provides money and technical assistance to customers, developers, and design professionals to encourage new design features and efficient equipment in new construction, and building renovation (id. at 3, 69). In market transformation programs, regional efforts conducted jointly with other electric companies are designed to transform (i.e., create self-sustaining) markets for efficient lighting, clothes washers and other appliances, commercial cooling and ventilation, industrial motors, use of compressed air, and maintenance practices (id. at 4, App. B at 2-9). Education programs are designed to teach customers how to use their existing equipment more efficiently and provide some new energy-efficient equipment where indicated (e.g., energy-efficient refrigerators to qualifying low-income customers) (id. at 63). Finally, retrofit programs replace functioning equipment with more energy-efficient equipment (id. at 104).

B. Cost-Effectiveness

The Company calculated several types of benefits to its energy system from its programs, including the value of electric generation and capacity costs avoided, transmission and distribution costs avoided, and certain low-income benefits accruing to the Company

(Plan at 10; App. C at 3,6,9; Exhs. DTE-1-3; DTE-1-4). See DTE Guidelines at § 3.3.2. Similarly, the Company calculated several types of benefits specific to program participants, including the value of (1) reduced consumption of heating oil, natural gas, and water;

(2) longer equipment replacement cycles; and (3) several benefits specific to low-income participants, such as reduced disconnections for inability to pay (Plan, App. C at 3, 6, 9; Exhs. DTE-1-3; DTE-1-6; DTE-2-2). See Id. at § 3.3.3. The Company initially did not include, in its calculation of market transformation program benefits, savings from equipment expected to be installed in the future (i.e., post-program savings) due to activities undertaken during the program years 2000-2002, as required by the DTE Guidelines at § 4.2.1(b) (Exh. DTE-1-8). In response to a Department information request, the Company estimated these post-program savings to be approximately equal to the savings claimed for market transformation programs for the years 2000-2002 (Exh. DTE-4-1).

The Company reported that, using the total resource cost test required by the Department, all of its programs are cost-effective (Plan at 118, App. C at 1-9).

See DTE Guidelines at § 3. In particular, as shown in Table 1 attached to this Order, the Company estimated benefit/cost ("B/C") ratios for individual programs that range from 1.03 to 2.28, with B/C ratios of 1.46, 1.40, and 1.37 averaged across all programs for 2000, 2001, and 2002 respectively (id. App. C at 1, 4, 7).

The Company reported actual prices for electricity, natural gas, and heating oil in late 2000 (Exhs. DTE-1-3, DTE-2-1, DTE-2-4). These prices were 14 to 42 percent higher than the price projections they used to calculate program benefits for 2000 and 2001 in the Plan (Exhs. DTE-1-3, DTE-2-1, DTE-2-4). Using these actual resource prices for late 2000 in place of its projected prices, the Company calculated an increase in the benefits of its programs as compared to those benefits stated in the Plan (Exh. DTE-2-6).

C. Competitive Procurement

For its general residential programs, the Company reported that out-sourcing and competitive procurement account for 92 percent of expenses, with competitive bids for all of its administration, marketing and equipment installation services (Plan at 123; App. A, Table 3). It also reported that out-sourcing accounts for 87 percent of low-income program expenses (Exh. DTE-1-1). As required by G.L. c. 25, § 19, the Company stated that it implements its low-income residential demand-side management and education programs exclusively "through the low-income weatherization and fuel assistance program network" (Exhs. DTE-1-1; DTE 1-2).

The Company reported that competitive procurement accounts for 63 percent of its C/I expenses (Exh. DTE-1-1). The Company stated that it competitively bids all services under its C/I programs every two years, and in some cases more often (Plan at 123). However, the Company also reported that in its two largest C/I programs, accounting for 70 percent of total C/I program costs, participating customers do the actual procurement for equipment installation (id. at 123, App. A). The Company stated that, although it encourages customers to solicit bid prices from multiple vendors, such solicitations are not required except for large custom projects, where the Company bases the rebate on the lowest bid (id. at 123).

IV. ANALYSIS AND FINDINGS

The Company provided expected B/C ratios for its proposed programs for the years 2000-2002, showing that all B/C ratios are greater than 1.00. When the benefits of programs exceed the costs, the programs are cost-effective. DTE Guidelines at § 3.5. The Department reviewed the method by which the Company determined the benefits and costs for its programs and finds that the benefits and costs were determined consistent with Department criteria for establishing program cost-effectiveness. DTE Guidelines at §§ 3-4.[(4)]

The Department notes that the benefits of the programs are likely to be even greater than the Company estimated in its Plan. First, the Company initially did not claim the benefits of post-program savings for market transformation programs. Second, the benefits of avoided electricity, natural gas, and heating oil are higher than the Company claimed in its Plan, because the actual prices for these resources were 14 to 42 percent higher in late 2000 than the prices the Company used to calculate benefits for the program years 2000 and 2001. Accordingly, the Department finds that, based upon the assumptions used in its analysis, the Company's programs are cost-effective.

The Company provided evidence that its use of competitive procurement is thorough for its residential (non low-income) programs and that it complied with the requirements of

G.L. c. 25, § 19 for low-income programs. For C/I programs, the Company competitively procures services it provides and allows the large C/I customers to procure their own services. Accordingly, the Department finds that the Plan provides for competitive procurement to the fullest extent practicable.

In consideration of the fact that the DOER Report concluded that the Plan is substantially consistent with the statewide energy efficiency goals, and the Department's findings above that the programs are cost-effective and use competitive procurement to the fullest extent practicable, the Department hereby approves the Company's Energy Efficiency Plan for the years 2000-2002.

In order to improve the accuracy of its cost-effectiveness analyses, the Department directs the Company, in its Energy Efficiency Annual Report, to: (1) include post-program savings in its calculation of benefits from market transformation programs, consistent with DTE Guidelines at §§ 4.2.1(b), 4.2.2(b); and (2) use, to the extent reasonable, actual prices for past program years and best available price projections for future program years, in its calculation of program benefits from saving electricity, natural gas, and heating oil. However, to the extent that the Company bases its performance incentives on actual benefits achieved, the Company shall calculate program benefits using the same resource prices and the same treatment of post-program savings used in setting the performance goals on which the incentives are based. See DTE Guidelines at § 5.

Since the Plan and the Update provide specific performance incentive goals only for 2000 and 2001, the Department directs the Company to file, in the first quarter of 2002, an updated budget and specific performance incentive goals for 2002.

## V. ORDER

Accordingly, after due notice, opportunity for public comment, and consideration, it is hereby

ORDERED: That the Petition of Massachusetts Electric Company and Nantucket Electric Company for approval of its three-year energy efficiency program be and is hereby APPROVED; and it is

FURTHER ORDERED: That Massachusetts Electric Company and Nantucket Electric Company follow all other directives contained in this Order.

By Order of the Department,

James Connelly, Chairman

W. Robert Keating, Commissioner

Paul B. Vasington, Commissioner

Eugene J. Sullivan, Jr., Commissioner

Deirdre K. Manning, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).

TABLE 1. Budgets ($000) and Benefit/Cost Ratios, as Filed

| | 2000 | | 2001 | | 2002 | |
|---|---|---|---|---|---|---|
| | Budget | B/C | Budget | B/C | Budget | B/C |
| **Residential** | | | | | | |
| New Construction | 1,772 | 1.21 | 2,759 | 1.41 | 3,745 | 1.46 |
| In-Home Services | | 1.16 | | 1.05 | | 1.02 |
| Energy Wise | 5,904 | | 5,239 | | 4,942 | |
| Energy Conservation Service | 1,753 | | 2,835 | | 3,450 | |
| Products & Services | | 1.03 | | 1.03 | | 1.04 |
| Lighting | 2,252 | | 2,164 | | 2,067 | |
| Clothes Washers | 1,190 | | 1,121 | | 963 | |
| Other Energy Star | 882 | | 1,066 | | 1,042 | |
| Home Energy Management - Load Control | 555 | 2.28 | 557 | 2.25 | 559 | 2.19 |
| Shareholder Incentives | 2,995 | -- | 1,171 | -- | 1,538 | -- |
| Program Development, etc. | 334 | -- | 332 | -- | 329 | -- |
| **Subtotal** | 17,638 | 1.15 | 17,244 | 1.13 | 18,635 | 1.14 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Low-Income** | | | | | | |
| New Construction | 183 | 1.18 | 244 | 1.34 | 310 | 1.43 |
| In-Home Services | 4,493 | 1.98 | 4,714 | 1.88 | 4,710 | 1.87 |
| Products & Services | 235 | 1.85 | 198 | 1.98 | 191 | 2.00 |
| Shareholder Incentives | 531 | -- | 357 | -- | 418 | -- |
| **Subtotal** | 5,441 | 1.94 | 5,513 | 1.86 | 5,629 | 1.85 |
| **Commercial / Industrial** | | | | | | |
| New Construction | | 1.32 | | 1.30 | | 1.23 |
| Design 2000 | 14,880 | | 13,850 | | 11,908 | |
| NEEP Initiatives | 266 | | 271 | | 271 | |
| Design Lights Consortium | 219 | | 202 | | 202 | |
| Industrial Systems Optimization | 135 | | 149 | | 149 | |
| Other Initiatives | 130 | | 108 | | 108 | |
| Retrofit | | 1.69 | | 1.65 | | 1.62 |
| Energy Initiative | 9,825 | | 9,451 | | 8,017 | |
| O & M | 62 | | 62 | | 61 | |
| Small C/I | 6,767 | 1.61 | 5,205 | 1.62 | 4,635 | 1.61 |
| Interruptibles - Load Control | 3,437 | 1.65 | 323 | -- | 0 | -- |
| Shareholder Incentives | 8,230 | -- | 3,338 | -- | 2,608 | -- |
| Program Development, etc. | 595 | -- | 591 | -- | 585 | -- |
| **Subtotal** | 44,547 | 1.52 | 33,548 | 1.41 | 28,544 | 1.44 |
| **TOTAL** | 67,626 | 1.46 | 56,305 | 1.40 | 52,808 | 1.37 |

Source: Plan, App. A, Tables 2; App. C, at 1, 4, 7.

1. On its own motion, the Department moves the Plan, the Update and the Company's 26 responses to Department record requests into the record of this proceeding. The responses are marked as: Exhs. DTE-1-1 through DTE-1-14; Exhs. DTE 2-1 through DTE-2-6; Exh. DTE-3-1; and Exhs. DTE-4-1 through DTE-4-6. In addition, the Department incorporates by reference into the record of this proceeding the DOER Report. 220 C.M.R. § 1.10(3).

2. G.L. c. 25, § 19 authorizes and directs the Department to require, for all electric consumers as of March 1, 1998, a mandatory (fixed) charge per kilowatt-hour ("KWH") for energy efficiency activities, including, but not limited to, demand-side management activities. The per KWH charges for the following (calendar) years are: 3.3 mills for

1998; 3.1 mills for 1999; 2.85 mills for 2000; 2.7 mills for 2001; and 2.5 mills per KWH for 2002. The Plan's programs are funded solely from these charges.

3. Section 5.3 of the DTE Guidelines specifies the maximum incentives allowed.

4. This finding incorporates the Company's analysis of the benefits of post-program savings in market transformation programs (Exh. D.T.E. 4-1). See D.T.E. Guidelines at § 4.2.1(b).